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THE FOUNDRY

Vol. 1. SEPTEMBER, 1892. No. 1.

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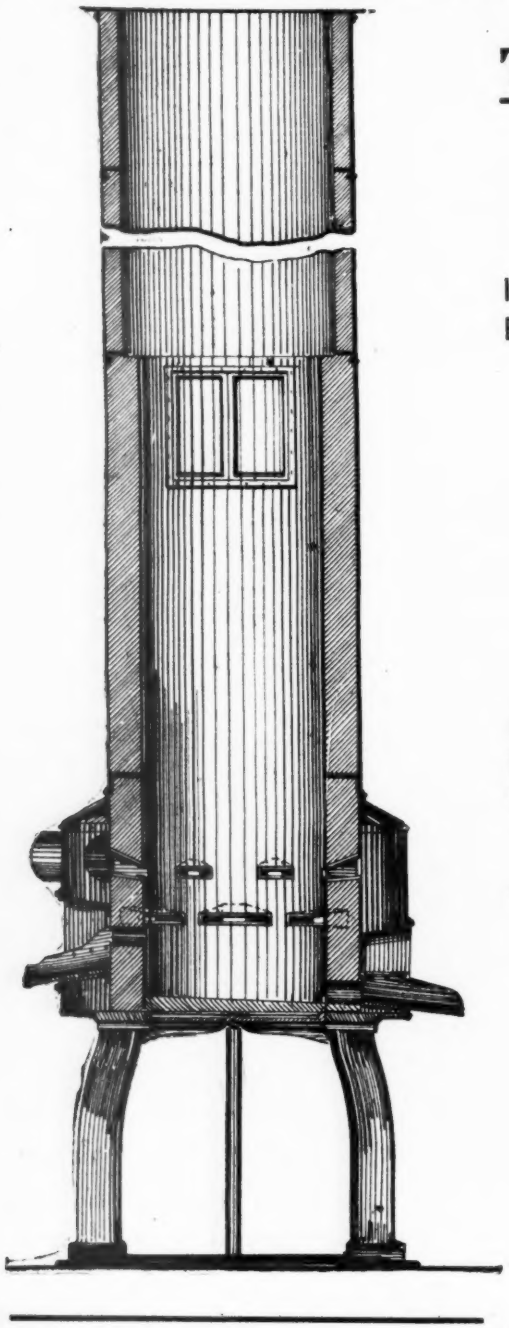

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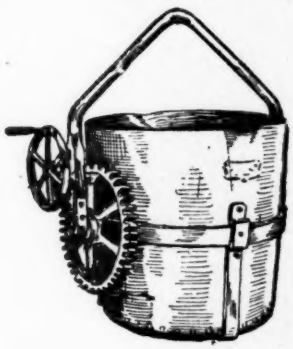

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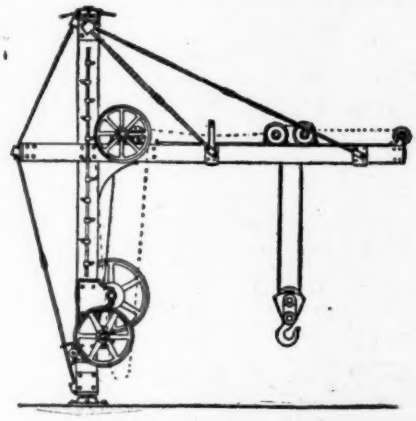

THE FOUNDRY

VOL. 1. DETROIT, MICH., SEPTEMBER, 1892. NO. 1.

FOUNDRY OVENS.

BY SIMPSON BOLLAND.

To properly locate a foundry oven is a very important item in foundry construction, for many reasons.

Too frequently we find that no attention has been given this subject until the foundry has been built, and then it is placed in one corner of the shop, thereby limiting the floor space considerably, as well as making that particular spot very undesirable to work near during the warm months.

When it can be done, which is nearly always, it is best to have the oven outside, so that the doors will come even with the inside of the wall, and in such a position as will permit a straight track to be laid directly under one or more of the cranes.

Another important consideration is what kind of an oven to build. I must say it would seem that very little attention is paid to this part of the subject, for, go where you will, you find that the universal idea is to have a hole of some kind, with a very indifferent carriage, requiring ten times the help to move in and out that it ought to, on account of the disgraceful roadway provided for it to travel on.

The same may be said in regard to the methods of firing such ovens, "any way" being considered "good enough," providing the cores or molds are dry "some time."

The thought that by a judicious arrangement of these things both time and money, as well as considerable annoyance, might be saved to all concerned, does not enter the mind of the originator; and so he pursues his way blindly, supposing that he is saving money for the firm by withholding the cost necessary for alteration.

When an oven is to be built, care should be taken that it will meet all the requirements of the shop, both as to size and equipment.

Should an oven be required for a very small foundry, it is just probable that one or more of the very excellent rotary ovens now on the market will suffice, and be as cheap as anything which could be erected by the owner; but should it be that the amount of cores required are but few and small, a very cheap and handy device is to make cast or wrought iron sides and back the required width and height, the sides to be provided with slides at suitable intervals on which to rest the shelves. The top must be provided with a hole having a raised edge, on which a piece of stove pipe may be fitted; the front must be hinged on full size, so as to expose all parts of the oven at once.

An ordinary fire-pot, with provision for draught underneath, can be set down in the floor and the oven set over, or the whole may be built within the plates, as shown at Fig. 57.

Extemporized ovens of this class are very useful, even in large foundries sometimes, especially when small cores are needed through the day. They save the annoyance and loss caused by opening the large ovens, thereby allowing heat to escape, materially retarding the drying of the molds.

For large foundries something more elaborate is necessary. If the business of the firm is a special one, with the same routine of work every day, it is well worth the time to consider what is needed to facilitate the rapid handling and drying of the cores and molds.

The kind of furnace and its position, the place for the damper, and how to use it to get full duty from the fuel, are subjects worthy of consideration; also, how to regulate the damper

in order to allow of the free exit of the vapor made during the process of drying, without interfering with the legitimate draught required to bring out the best results from the fuel used. These and kindred subjects should interest the molder whose aim is to excel in these things.

If the oven is intended for jobs that will require more than one night to dry them, it will be proper to set the furnace or furnaces so as to allow of easy access without disturbing the doors and allowing the heat to escape. To meet this requirement, pits must be made at the most convenient places outside the oven, to communicate with the inside by a fireplace, which can be built of fire-brick, either level with the floor or as much above as will allow of easy access from inside as well as outside. The regulation bearers and grate bars can be used in the construction, and a front erected on the outside with doors after the manner of an ordinary boiler-furnace. The pit in this case should not be less than 18 inches below the grate-bars, with ample room on all sides for firing and cleaning.

For an oven 12 feet by 10 feet, and 10 feet high, one such furnace will suffice if its dimensions are 4 feet by 3 feet, and 1 foot 8 inches deep. For rapid drying in larger ovens another furnace will invariably be required.

One great objection to this method of firing is that the heat is not evenly distributed, some of the molds or cores being in a semi-green state, whilst others are burnt so much as to be almost useless. To overcome this, recourse has been had to several ingenious methods to secure a more even distribution of the heat.

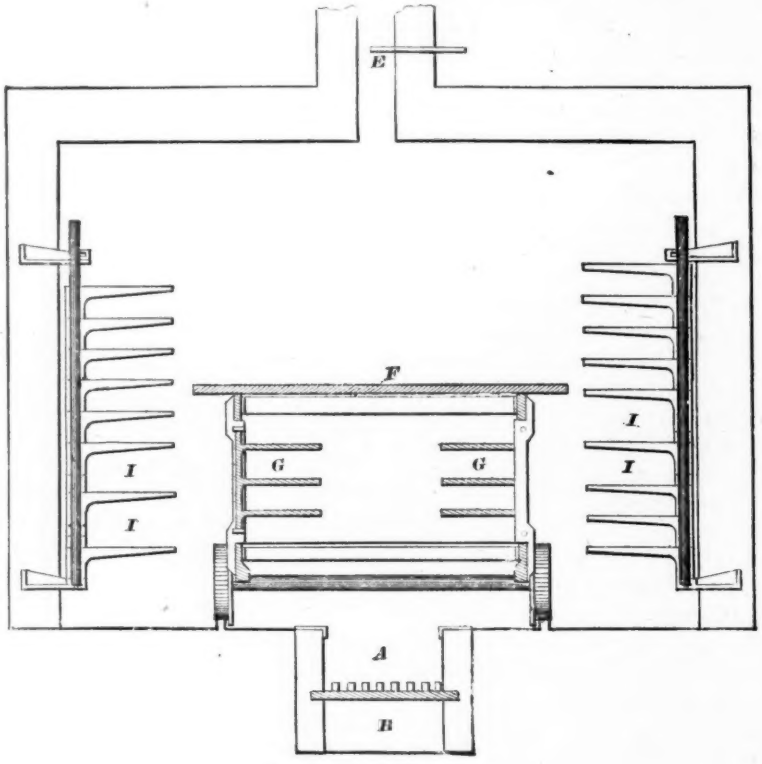

FIG. 53.

One is to build flues which pass under the floor only in some instances, and others have continued the system along the walls and roof.

I remember when we thought all trouble of the kind above mentioned would cease after we had laid down a perforated floor; but, as in the former case, it was a comparative failure, inasmuch as we did not obtain the maximum amount of heat, nor was it evenly distributed; the extra heat at the end nearest the fire burnt out and destroyed the castings

so much as to make the arrangement almost valueless.

For all ovens where one night's firing is all that can be allowed, the method shown in the accompanying figures is the most effective as well as the cheapest, because, whether one or more furnaces are needed, they can be so placed as to be equidistant from the walls all round, thereby giving an almost uniform heat all through, at least as near as is practicable with open fires. I shall not dwell here on the possibilities for heating where there are good

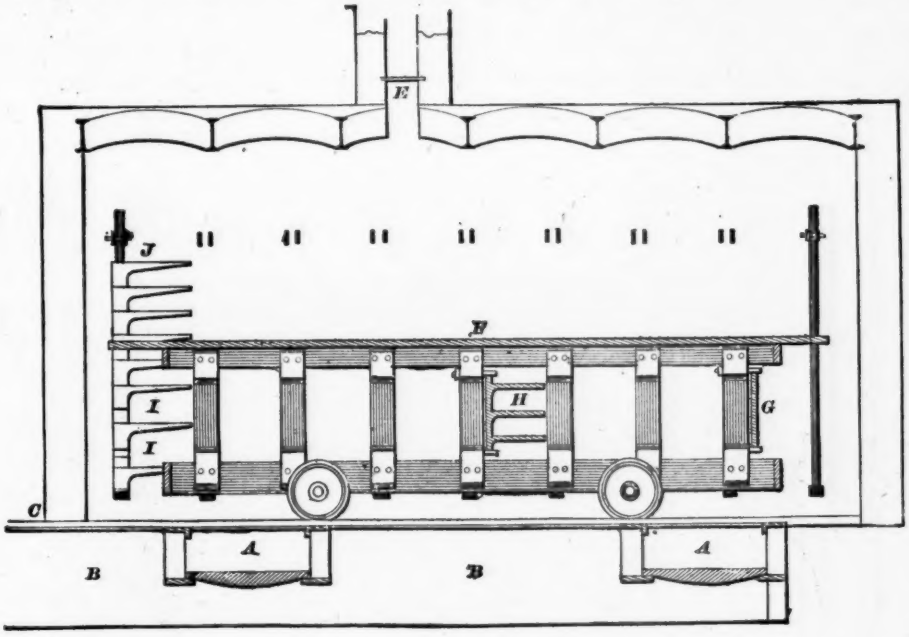

FIG. 54.

supplies of natural gas at a cheap rate; but it will be clear to all that the advantages which such offer ought to be made the best of.

Neither is it required at this writing that I should enter into a description of all the elaborate systems of drying by the use of hot air and superheated steam; these methods are only to be thought of where there is not only the demand for such an immense outlay, but likewise the necessary genius to adopt them. I have no doubt whatever that if our foremen founders were better posted in such matters and able to make themselves understood, employers would be led to make vast improvements in their working plant, as well to their credit as to their profit.

In laying down an oven track be sure and have it as wide as the oven will allow; this gives stability, and allows for a good-sized carriage, which is a desideratum. But a good carriage is terribly marred by having an insufficient roadbed.

The best roadbed for an oven is made by good longitudinal timbers crossed by 12-inch by 4-inch I-beams—wrought-iron—on which the ordinary steel rails can be bolted. Ovens should not be made any higher than is absolutely necessary; the fuel needed to heat this extra space being so much wasted.

Where there is to be continuous firing, either hard or soft coal, of a medium size and good quality, may be used; but if all the coal needed is to be put on at once, then it is preferable that hard coal only should be used.

I would here say that it pays to have a man of more than the common run of intelligence to look after the firing of foundry ovens; much may be saved by such a man. He will acquaint himself with all their pecularities, especially how to meet the various changes of the wind, etc., which of course affects the draught very materially, a full knowledge of which will enable him to guard against a very common occurrence,—either that the cores or molds

are not dried sufficiently, or that they are burnt so as to be useless.

By a careful observation as to the condition of the cores every morning, he will be able to modify his fire to suit the amount of drying to be done. If he finds that the walls and upper surfaces of the cores are covered with moisture, he will at once know that there has not been a sufficient allowance of draught made for the escape of the vapor; but he knows also that if he should open his damper too much to meet this evil, he encounters one equally as damaging, which is, that too free an egress for the vapor will carry along with it the heat also; the fires will burn too rapidly, and the result will be even worse than before. He will take a middle course as near as possible.

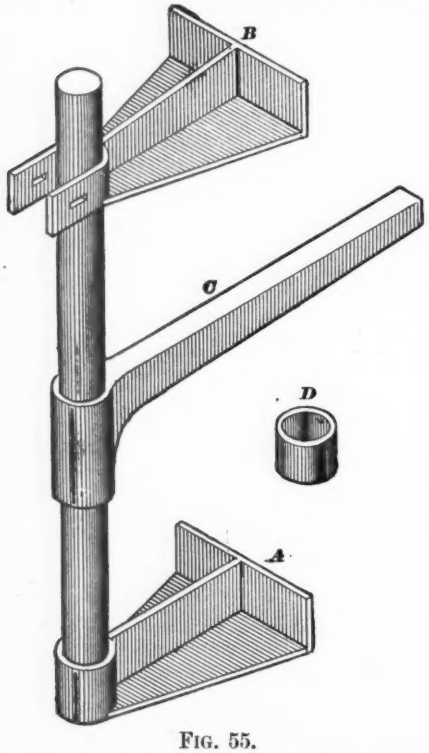

FIG. 55.

These are only some of the things which will come under the observation of a good man in such a position; his usefulness will manifest itself in countless other ways, always proving the advisability of preferring such a man, even at an advanced rate of wages, to men of only ordinary calibre.

The oven and carriage shown in the accompanying figures were built for the production of column cores, round and square. I desired that none of the principles herein set forth should be violated; it was my aim to occupy as much of the space as was practicable without in any sense marring the usefulness of the oven for any other purpose for which I might require it in the future.

The dimensions are 16 feet wide, 25 feet long, and 12 feet high; the walls are 16 inches thick, with roof composed of arches springing from seven 12-inch I-beams.

Figs. 53 and 54 are end and side sectional elevations of oven and carriage racks, etc.; Figs. 55 and 56 are views of details.

This oven is heated by two furnaces, *AA*, Figs. 53 and 54, which are 4 feet long, 3 feet wide, and 16 inches deep, respectively.

A continuous flue *BB*, Figs. 53 and 54, commencing 6 feet from door at *C*, Fig. 54, the same width as the furnaces, and 3 feet deep, running the whole length of the oven and out at the other end, supplies the draught, the damper being in the chimney at *E*.

The damper shown regulates combustion admirably, and allows for the minimum amount

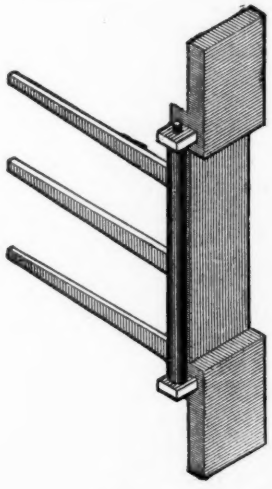

FIG. 56.

of coal to thoroughly dry all the cores up to 12 inches thick, without in any sense injuring such as are smaller.

The carriage, as will be seen, is a plain one, put together in sections, and travels on a track 7 feet 10 inches wide; its length is 20 feet, and it stands 2 feet 2 inches from the floor; the side supports and upper frame, made

(*Continued on page 11.*)

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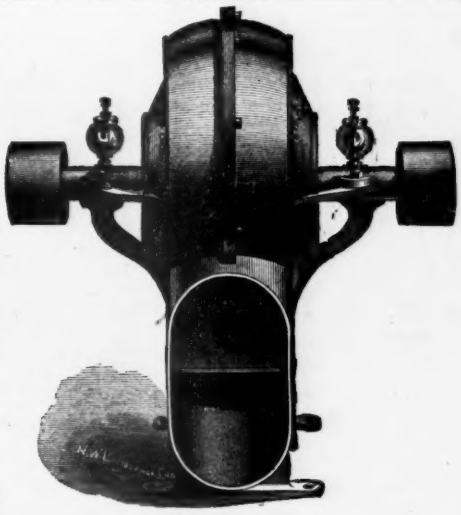

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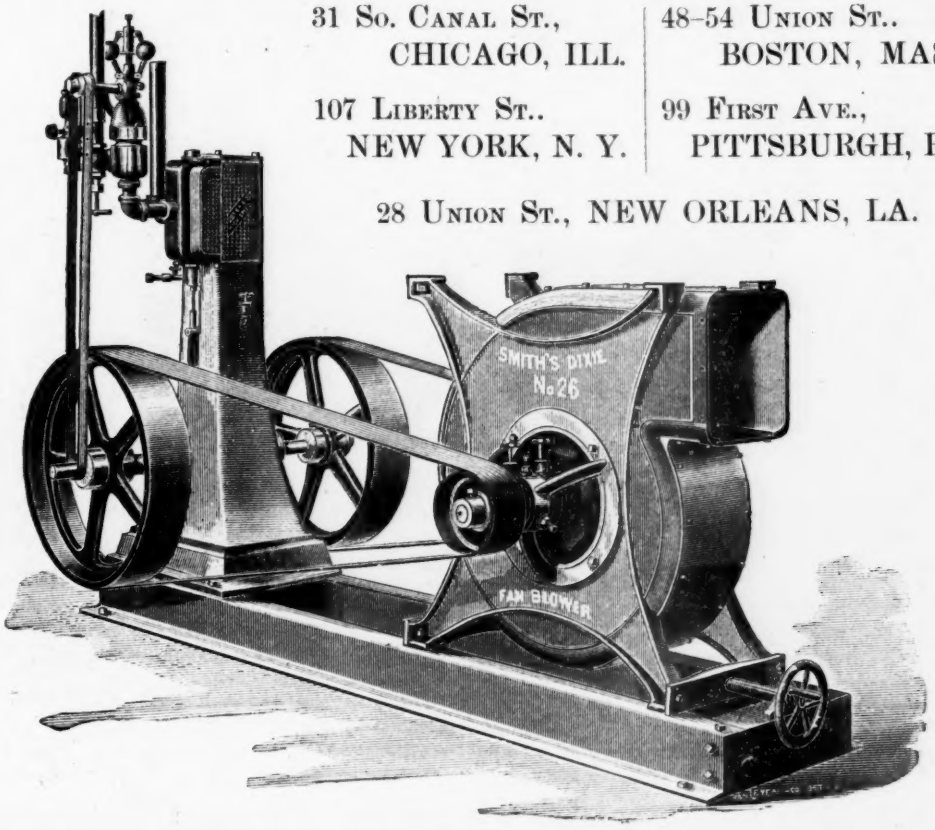

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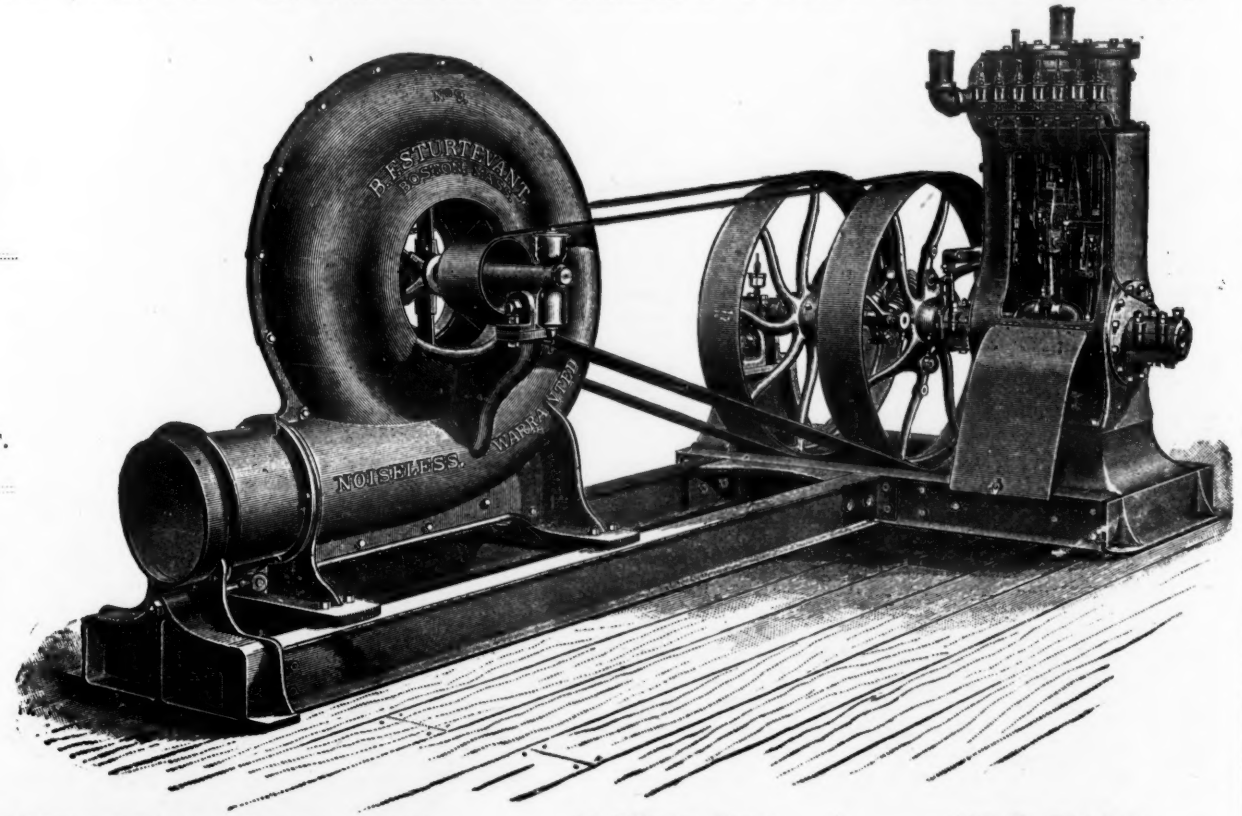

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Built on Adjustable Bed
Combined with Countershaft.

ALSO WITH

DOUBLE UPRIGHT ENCLOSED ENGINE.

BUFFALO FORGE CO.,

BUFFALO, N. Y.

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Continued from page 6.

in sections also, raise the platform, or table, *FF*, Figs. 53 and 54, 6 feet from the floor; this platform is 23 feet long and 9 feet 4 inches wide, made in sections, with edges and one side planed true, and bolted firmly on the upper frame so as to form a perfectly even and smooth surface, on which almost any kind of rectangular core may be made by the use of a pair of sides and ends only.

The uprights which support the table may be utilized for carrying cores by casting holes in them, through which eye-bolts may be secured. In these eyes racks may be made to turn either to the inside, as shown at *G*, Figs. 53 and 54; or they may remain parallel with the carriage, as seen at *H*, Fig. 54; or brought outwards, as necessity occurs.

An isometric view of the rack is shown at Fig. 56.

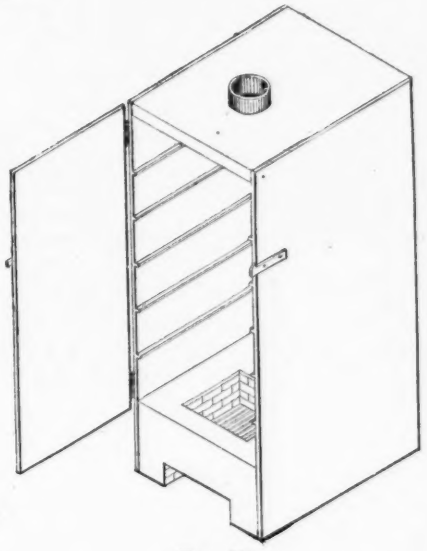


FIG. 57.

Not desiring to limit the width of the oven by building in the walls stationary rack fixtures,—which are never the right distance between,—I succeeded in contriving a rack which answers admirably. As will be seen, the whole consists of nine fixings on each side of the oven, built firmly in the wall, parallel and straight with each other; in the projecting ends of the bottom fixings a cup is cast, in which rest the 9 bars 3 inches in diameter and 9 feet long, held in position above by other fixings, built in the wall, with the projecting ends open, provided with a key-way with which to secure the shaft after all the arms have been slipped on.

The whole arrangement will be seen at a glance by carefully examining Figs. 53 and 54, and still more plainly by referring to Fig. 55, *A* being the bottom and *B* the top fixings spoken of.

C, Fig. 55, shows the arm, and *D* is a bush used to raise the arms to allow of a larger core being inserted between them, as shown at *I*, Figs. 53 and 54.

It must be understood that the bar is stationary, so that any of the arms can be turned out of the way at any time without disturbing anything which may be above or below. It will be readily seen that when all the arms, both on walls and carriage, as well as the upper and lower levels of the carriage, are in use there is certainly not much room lost; and when it is remembered that all that is needed to make a clear oven for other classes of work is to lay all the arms against the wall, as seen at *J*, Fig. 54, and strip the carriage of its upper rigging, one feels recompensed for the extra expense incurred in fitting up an oven after this manner.

And really I do not consider there is anything extraordinary in the expense of such an oven, for there need be no machinist's help in the whole job; for allowing that proper clearance is given in all the parts described, everything can be lifted out of the sand and set into place without further preparation. — Iron Founder.

—o—

The stove trade seems to be in very good condition in Ontario and all through Canada. The Stewart Mfg. Co., Woodstock; W. Buck, Brantford; McClary Mfg. Co., London; Gurney, Toronto, etc., all report business as being exceptionally good. They all ship extensively to British Columbia and the Northwest.

Mr. J. L. Aenchbeaucher has leased the machine shop and foundry of the Clayton Morter Co., Atlanta, Ga., and is now prepared to do foundry and machine work in the best manner. Mr. Aenchbeaucher is well known, and no doubt he will do a splendid business. Mr. Atkins has been employed to take charge of the foundry.

A good agent can go into any foundry in the country and secure subscribers for this paper almost as fast as he can write the names down.

Personal Mention.

Simpson Bolland at present has charge of the extensive foundries of Carrire & Haas, Brooklyn, N. Y.

Mr. E. Cotter has taken charge of the L. M. Rouse foundry, Chicago. They have a good run on small work.

Mr. Alex. Thompson has taken charge of the Link Belt Foundry, Chicago, Ill. They report trade improving very nicely.

Charles Wiltshire, formerly with the Link Belt Foundry Company, has gone into business for himself on Jefferson-street, near Adams, Chicago, Illinois.

Wm. A. Harris, formerly with the Springfield Foundry, Springfield, Mass., contemplates going into the foundry business extensively in that city in the near future.

Mr. George Dunlap has resigned his position as foreman of the Victor Stove Co., Salem, O., to engage in the grocery business. Jasper Bell will succeed him as foreman.

Mr. Louis Westerman, foreman pattern maker of the Todd Pulley and Shafting Works, St. Louis, Mo., is at work on a book devoted to the interest of pattern making.

E. Nicolet, foreman of the Vulcan foundry, Toledo, Ohio, was in the city last week and visited some of the Detroit foundries. He reports business good at the Vulcan.

Joseph Swinehart, foreman of the Huber Mfg. Co.'s Foundry at Marion, Ohio, celebrated his 38th birthday a few days since. Mr. Swinehart is a most competent foundryman and has hosts of friends, who all wish him many returns of the day.

Mr. John J. Cunningham, general foreman of the St. Louis Car Wheel Works, St. Louis, Mo., has appointed Mr. Lot Quailey assistant. The latter is extensively known, having acted in the capacity of foreman at Hannibal, Mo., Litchfield, Ill., and Jeffersonville, Ind.

J. Y. Burgoyne, the foreman of the Lima Machine Works, Lima, Ohio, has got the foundry of the old car works, which his firm recently purchased, in "apple-pie order." Although the foundry has not been operated for two or three years, one could not tell it from looking in the foundry at present. There is nothing "rusty" looking about the place except the pig-iron in the yard.

HOW MOLDERS VIEW IT.

Whether or not the World's Fair should close its gates on Sunday is still causing much discussion, and as the proportion becomes better understood, the more pronounced the sentiment in favor of permitting the crowds who are certain to visit the great show to view such of its attractions as can be conveniently exhibited without causing too much labor on the part of employes.

No better evidence of this exists than the vote recently taken by the Iron Molders' Union on the subject, and as a stroke of enterprise on their part is worthy of especial mention. We clip the following from the New York *Post*:

"Sunday opening (at Chicago) has been urged for the reason, among others, that it would give a great many workingmen and their families a chance to visit the Fair which they would not otherwise get. As nobody was especially interested in discovering the attitude of this class of people toward the subject, few statistics have been collected. One canvass, however, has been made. The International Iron Molders' Union, whose headquarters are in Cincinnati, have taken a vote of the local unions upon the Sunday opening question, and the result is three to one in favor, the vote standing 13,695 for and 4,585 against. This is doubtless a pretty fair test of the feeling among intelligent workingmen in all trades."

—o—

The Salem Lock Works, Salem, O., a new establishment, have started up. They manufacture all kinds of house hardware, and intend to employ from 15 to 20 bench molders.

—o—

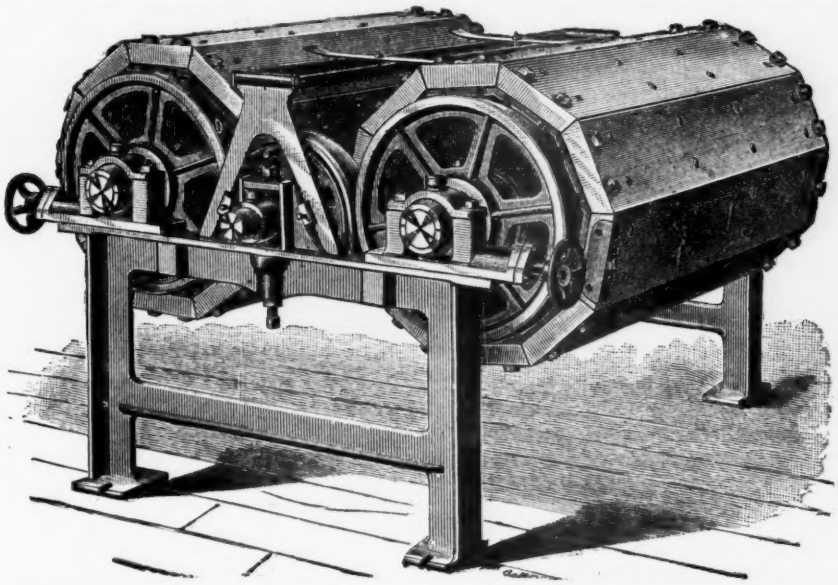
Notice.

All advertisements under this head given two insertions free of charge. We make this offer with a view of being of assistance to our patrons.

WANTED—By practical coremaker, steady position in charge of core room. Unmarried; 38 years of age. Understands the business thoroughly. Machinery work preferred. Good references. Address "Coremaker," this office. 9

WANTED—An opportunity by a practical molder to invest about five hundred dollars and 27 years' experience in some well-established machine or jobbing foundry, with or without brass furnace. References exchanged. Address "Business," care THE FOUNDRY. 9

SITUATION WANTED—As foreman or superintendent of foundry. Have 29 years' experience as molder and foreman with light and heavy castings in machinery, safe work, furnace and jobbing. Accustomed to handle 90 molders, buy iron and coke, etc. In fact, am thoroughly acquainted with everything pertaining to the foundry Address "Hustle," THE FOUNDRY. 9



EXHAUST TUMBLING BARREL.

The illustration represents a pair of the latest improved tumbling barrels. Every foundryman who is looking toward the betterment of his foundry is interested in any and all improvements of this kind. Not alone does this machine do away with the horrible clatter and din in the milling room, but it also makes the room clear of dust, besides accomplishing an actual saving of twenty-five per cent. in cleaning the castings.

The staves of the machine are made of 2-inch well-seasoned oak timber, lined with hard steel plates. Each stave is so bolted that, no difference where the machine stops, the staves can be taken out and replaced without trouble. As soon as the sand is loosened from the castings and is pulverised sufficiently fine for the exhaust to lift it, it is immediately carried away to a box or receptacle, which may be placed at any point in or out of the milling room. This taking away the dust is where the saving of time in cleaning is accomplished.

These barrels are a fine piece of workmanship, being substantially made and nicely finished, and making a very attractive appearance. The barrels are operated by belt to the first one, and balance of barrels are run by friction bearings. As many barrels as are needed can be placed side by side and operated by the same belt. Any one barrel can be stopped or started at will by turning the wheel handle shown in cut, which raises or lowers the barrels from contact with the friction wheel. They are the most complete, easy-running, noiseless, clean, and most satisfactory tumbling barrels that can be made.

The J. D. Smith Foundry Supply Co., of Cincinnati, O., furnish these in octagon or square shape barrels, in almost any size desired; also the exhaust pan when desired. After the noise and dust of the mill room about a foundry is abated, other improvements as profitable and pleasing will be in line. Only get the clatter of the old iron tumbler done away with first.

—o—

The Canton, O., Iron Foundry Co. are building new works near their old plant, and expect to be ready to run the new foundry in about two months; it will be much larger than the present one. With the new equipments they have adopted their capacity will be very much increased. This was necessary to keep up with orders.

The Buckeye Engine Co., Salem, O., have received an order for a triple expansion compound engine of 1,000 horse power, to go to Boston, Mass.

Agents can make a good salary securing subscribers for this paper. Every proprietor, superintendent and foundry foreman will subscribe for it on sight, as well as every molder who takes an interest in his business. References required.

EARLY DAYS OF STEEL FOUNDING.

BY JOHN PETTIGREW.

During the last twenty years, quite a new branch of the foundry business has grown up in this country and Europe, and I think it would be interesting to recall some of the early attempts in the molding for "steel castings." Of course I can only speak of the experience we have had in our works, but I think it will represent the trials of others who started without realizing the difficulties they were to encounter, owing to the vast difference there is between the pouring heat of cast iron and steel. During the summer of 1873, we were using a great many hammer dies; these being made of cast iron, their life was very short, so the question arose, could we not cast these of steel from the converter. The pattern was brought into the foundry and molded in dry sand in the usual way; after being thoroughly dried they were sent to the converting department to be cast, which was done successfully as far as pouring was concerned; next morning after being shook out and what sand could be knocked off removed, they were a sight; each piece looked like a mass of black glass, the facing used being completely vitrified, and although the heaviest piece did not weigh over 150 pounds, it took several days to clean one. It is needless to say we did not try any more with that kind of facing, but when they were cleaned up and finished, their staying qualities gave such good satisfaction that it was settled more should be made. The next few were made with ground fire-brick baked hard, but these did not prove much better; the idea seemed to be that on account of the high heat at which steel had to be poured, the mold had to be extra hard, and the ground fire-brick was used because it was the most refractory substance that could be got. After a while, instead of using blacking as a wash, they used finally pulverized ganister,* which was a decided improvement, as the castings cleaned better, but were awful rough and "pock" marked all over the surface, but on account of the difficulty of cleaning wherever there was a flat surface on which a chill could be used it was put there, for it was found that the chill did not harden the steel as it does cast-iron, and when the casting was removed from the mold the surface was clean and did not need to be chipped all over to take off the burned brick, which was quite a saving in time.

As everyone was more or less interested in seeing what could be done successfully, there were a good many suggestions made and experiments tried, and as the work began to extend to other machinery, including gears, bell cranks, brackets—in fact, any and every thing that had to stand a sudden or heavy strain—something had to be found that would stand against the liquid metal.

As we had some good sandstone which had been left over from the blast-furnace construction, it was decided to pulverize it and see what could be got out of it. Having mixed it like core sand with flour, we used it like facing on a hammer block weighing about 3,500 pounds, backing it up with common molding sand, using fine ganister as a wash.

We cleaned this with less trouble than any we had yet made, and from that time on we have used the purest silica in the shape of St. Peter sandstone that we can get. Being in a part of the country where this can be procured in unlimited quantities, almost as fine as flour, we consider ourselves very fortunate.

After a while we found that by burning this sand before using we had a better result. We had been continuing on this line for a few years when the managers of the works got an offer from a party East who would send us a man who would teach us how to make steel castings. He claimed to have a patent on the process, and was going to do great things. His recommendations showed that a number of parties with whom the company did business in Pittsburg, Pa., and Newburg were using his process, so they decided to send a man on, whose duty, among other things, was to see if the process was as good as represented, and wherein it differed from our own practice.

The only difference he could find was in the wash used, which was made of pulverised flint; of course we adopted that, as we found it was skinning the castings better than the ganister, and since then the only change we have made has been in using over this wash of pulverised flint

* Ganister is a name given by steel makers to an igneous rock, like granite, whose composition is 96 per cent. silica. This is ground fine, and forms a principal part of the material of which Bessemer vessel bottoms are made. This company get theirs from the Lake Superior district.

or quartz a wash of the very best plumbago mixed with weak molasses water.

We use no special steel in pouring our molds, but have to take what is being blown in the Bessemer vessel—hard or soft, as might be making for rails or billets.

As in every part of a molder's work, the better and more careful the man is the more success will he have. Everything must be well secured. It is no use for me to tell a good molder how to do this. He has learned that with his business, and if he don't carry it out there is something or somebody to blame.

I have endeavored to keep to steel molding pure and simple. There are other phases of the work I might take up at another time if you think it will be interesting to your readers or be of any use to fellow craftsmen.

JOLIET.

—o—

FOUNDRY LITERATURE.

BY W. A. JONES.

A journal devoted entirely to foundry interests certainly is a step in the right direction, and should not only be welcomed, but heartily endorsed and supported by all who are either directly or indirectly connected with that great —though apparently little known or understood—industry.

There is no one thing that will improve foundrymen more than to thoroughly peruse literature devoted entirely to their interests, to read and exchange ideas, to set forth for the benefit of the craft the results of their own experience and observations, and to ventilate their own ideas.

There are many molders whose letters would be read with both pleasure and profit, if they could only be induced to spread their views on paper, but who think, Oh, well! All I could say would do no one any good, and besides that I cannot write good enough for publication. If these same men would stop a moment to consider, and ask themselves the question, how much they would have given in their younger days to have had the benefit of just such letters that they themselves could write, they would be forced to admit that they would have been greatly appreciated.

The articles of real value to the mechanical world do not always come from the pens of men of great education, but come from the brains of those who have acquired a practical knowledge by countless hard knocks and years of experience. To read is to think, and to think is to educate and advance, and in education, more than all else combined, is to be found the true source of success, alike to both employer and employe, and will ultimately prove the great lever which will solve the question of discord between labor and capital.

The old adage "That there is plenty of room on top," was never more applicable to any trade than that of the molder.

The demand of to-day is not for more mechanics, but for better ones, mechanics who are capable of holding their own in all classes of work, men who can be depended on every day, and to that class of men there are always openings, no matter what may be the condition of trade.

—o—

A good week's wages can be made easily in a day in any fair sized town or city by an ambitious man who will undertake to take subscribers for "The Foundry."

The Church Manufacturing Company, of Morenci, Mich., manufacturers of hydraulic wind-mill regulators, force pumps, etc., are building new works at Monroe which they expect to occupy about Dec. 1. The foundry will be 50x100. They are putting in all modern improvements including a 42 ton Colliau Cupola.

The Chicago Foundry Co. have just cast a pulley weighing when cleaned 25 tons 700 pounds, hollow armed. In exactly 45 minutes after the order was given for the first tap out this great pulley, 25 feet diameter and 52-inch face, was cast. Great care was taken by the able foreman, Mr. J. H. Rahling, in handling all this metal, which required the two cupolas and air furnace. Only four ladles were used —11 tons, 7 tons, 6 tons and 3 tons—which were handled in the following order—the 11-ton by steam crane, the 7-ton by hand crane, the 6-ton and 3-ton by overhead traveler. Mr. H. Keath, the general manager for this firm, is a man who understands the foundry business thoroughly from the bottom up. They have also recently turned out a Corliss cylinder 42 x 48 for a compound engine, which weighed when dressed 13 tons 200 pounds; it goes with the above mentioned pulley. They have several large contracts on hand for other heavy work.

The Foundry.

A TECHNICAL JOURNAL DEVOTED TO THE FOUNDRY INTERESTS.

Published Monthly by

"The Foundry Publishing Company,"

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J. M. MACFARLANE, - - - - - PRESIDENT.
S. E. WHITNEY, - - - - - VICE-PRESIDENT.
JOHN A. PENTON, - - - - - SEC'Y-TREAS.

SUBSCRIPTION—ONE DOLLAR per year in advance in United States, Canada or Mexico; one dollar and twenty-five cents per year to all other countries. May be sent by express, draft, money order, registered letter or postage stamps. Single copies 10c.

CLUB RATES—Eight or more subscriptions, sent at one time, 75 cents per year each. Cash to accompany order.

Advertising rates furnished upon application.

SUBSCRIBERS can have address changed as often as desired.

IF YOU FAIL to receive your paper promptly, please notify us.

THE FOUNDRY is issued promptly on the tenth of each month, and will spare no endeavor to furnish valuable news and information to those interested professionally or incidentally in molding, melting, mixing of metals, foundry management, etc. Persons connected with any of these lines of industry will confer a favor upon the Editor of this Journal by sending him news from their section of the country pertaining to the foundry interests, particularly individual theories and experiences of practical value.

DETROIT, SEPTEMBER 10TH, 1892.

SALUTATORY.

We make our bow. What do you think of it?

It has been the wonder of thousands of foundrymen that the most important department of the world's most important industry—the iron industry—has never boasted a publication strictly its own. All others are more or less ably looked after by numbers of periodicals and trade journals, many of which possess much literary merit, are eagerly sought for, and enjoy a high degree of prosperity, but for some strange and unaccountable reason the foundry business has not even been in the rear of the procession, but out of it altogether.

The subject of a foundry paper is not a new idea. The attempt to supply the need is, but although always sanguine, we have been the recipients of such assurances of support and encouragement from all over the country since it has become known that we contemplated this step as have surprised us beyond measure, and demonstrated more completely than anything else could at this time, the existence of a universal demand for a paper whose sole object would be the advancement of the foundry interests and all connected therewith. We have come to stay. THE FOUNDRY is a winner, and will, it is hoped, add one more to the already long list of prosperous trade publications for which America is noted. It proposes to become indispensable to every foundry proprietor, superintendent and foreman in the country who is desirous of keeping posted on current events, and to note the improvements constantly being made on present methods. The ambitious molder will see that it reaches his home regularly, and is carefully preserved for future reference. News items from all parts of America will receive particular notice, while mechanical articles by the best writers will be given the attention so necessary for a publication of this kind, and as time goes on new features will be added, until nothing will be left to be desired.

THE FOUNDRY will stand squarely for what, in its opinion, are the best interests of the whole business. No section thereof will be overlooked, and the importance of none unduly magnified.

We ask the co-operation of all those who desire the advancement of the foundry interests. We do not propose to be easily satisfied. Constant improvement we are in a position to promise already, until no paper of its kind in this or any other country shall take higher rank.

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MORE LIGHT NEEDED.

There is not a subject which gives the average foreman more cause for anxiety, or which furnishes him with more trouble from his employers, than the selecting of suitable grades of pig iron, scrap, etc., and their proper mixing for special kinds of work. In a heat where the iron is all melted from one cupola, and where the foreman is compelled to melt iron suitable for a large order of pulleys, some castings—such as a bed for a printing press (which must finish on the face absolutely without flaw or blemish the size of even a pin's head) and later a few hammer dies or castings for a chemical works, he has to exercise all his ingenuity if he desires to attain even good results. But few foremen are ever given the opportunity to become experienced on the iron mixtures involved in the turning out of a varied class of work until they find themselves face to face with the problem when the new job is in the sand, etc

The great trouble lies in a great number of brands of pig-iron with which the market is flooded, and the need of standard grades and terms which should be applied to them in all parts of the country so that a certain term applied to Lake Superior irons would indicate the same, or almost exactly the same, as when that term was applied to an Ohio, Pennsylvania or Alabama iron.

If standard grades could be universally used, as in grading wheat for instance, standard methods and mixtures could be adopted and standard rules inaugurated for the guidance of men, but very few of whom have had educational opportunities in youth, and are compelled to rely for much of their information on some pig-iron agent, whose only idea is to sell his goods, and who perhaps knows less of the subject than the men he tries to sell to, repeating like a parrot what he has been instructed to say.

We hope to do what we can in our humble way from time to time to remove the cloud of ignorance surrounding this most important subject, to the end that our readers may become as well informed on this subject as a printed article will permit, not losing sight of the fact that shop experience and tests are almost absolutely necessary to a perfect understanding of the subject.

——o——

TARDY RECOGNITION.

At no period in the history of the foundry business in America have so many new foundries been completed as during the past twelve months, while many more are now in course of erection. There is one peculiar feature observable in nearly all instances—that while, a few years ago, any sort of a building, with rude and awkward appliances, was good enough for the foundry, it is now considered almost imperative to secure everything of the most modern description, foundries are planned to provide plenty of light and ventilation, every care being taken to ensure ease of handling and shipment of both the raw material and manufactured article, improved cupolas, electric cranes, the very latest thing in blowers, tumbling barrels, core ovens, etc., are all now considered necessary, while many establishments have gone a step farther, and provided commodious washrooms, closets, etc., fitted with all modern conveniences.

While this is only as it should be, yet to the thinking man it indicates several things. In the first place, the importance of the foundry business, and the fact that as much skill is required for its successful management and to prevent waste is now conceded, a desire to make the shop as pleasant as possible to the molders and foundry help is apparent, with the view of increasing the output, and a knowledge born of experience seems to have suddenly made itself felt to the effect that makeshifts no longer pay, as in no other department of the iron industry can money be as readily saved in proportion to the capital needed as in the foundry by utilizing the latest improvements.

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PASS IT ALONG.

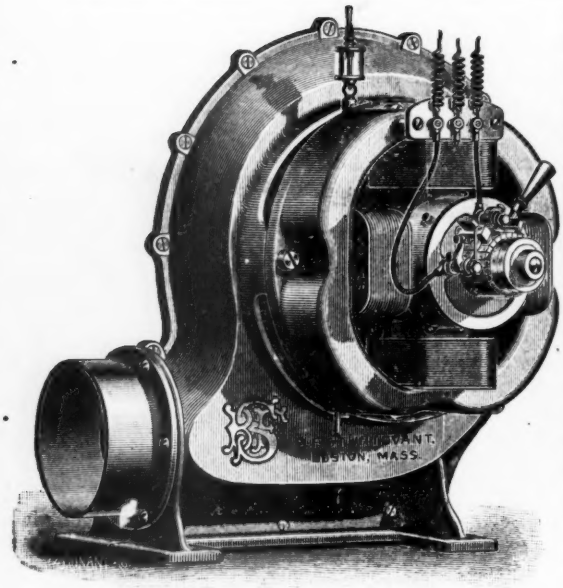
This is but the initial number of what is destined to be a great trade paper. Those who are at the head have had the experience and possess the necessary capital, and are so far masters of the situation as to place that question among the certainties.

But there are various degrees of success, and in order that we may have the very highest it is desired and expected that every foundryman who receives a sample copy will not only subscribe for it himself, but pass it to others in the same business, with a view to getting them to do likewise. If you are an employer, PLEASE draw the attention of your foreman to it, and the positive benefit he is certain to derive from having it mailed to him from month to month. See to it that every molder in your employment has his attention drawn to it, and remember that by urging him and aiding him to become a subscriber you will be benefiting him and possibly yourself.

To every foundry foreman we would say that it will be our aim to furnish everything that is new and best in shop management from time to time, and to the reading and thinking molder we promise more that will interest him than he can receive from any other source.

Therefore, that we may be warranted in sparing no expense to constantly enlarge, improve and render more interesting these columns, we ask your influence, confident that we will receive it and that you will not regret giving it.

Special rates where eight or more subscribe at one time.



THE STURTEVANT ELECTRIC FAN.

The rapid introduction of electricity as a motive power is continually making the convenience of the Sturtevant electric fan better appreciated. Nothing can approach them in adaptability in all locations and to all classes of work for which they are specially designed. Neither engine or belt is required, and starting and stopping is merely a matter of adjusting the switch. It can be readily seen that the fan can be set in any position without affecting the running of the motor. For this reason the fan may be located to discharge in exactly the required direction, and connection easily made by pipe, which can be made straight and direct to the point desired.

These fans are all of the standard high grade, and specially designed for the application of the electric motor. All running parts are carefully balanced and designed for quiet running at a high speed.

The electric motor is of approved design, specially arranged for fan propulsion, and capable of extensive and continuous use, without attention. It has been designed and is manufactured complete in every detail by the Sturtevant Co., and all parts are made on the interchangeable plan, so that repairs can be furnished quickly.

These motors fitted to the Sturtevant pressure and monogram blowers are being extensively introduced and found efficient for blowing forges, boiler fires and cupolas of any description. Ironworks of every description will find that this machine is particularly adapted for this work. Several have been introduced in iron foundries, for which purpose they are particularly adapted. The Sturtevant Co. have contracts now in hand for a number of electric fans for the above use.

A notable example of a very complete plant is the contract which the Sturtevant Company have taken for blowers and exhaust fans for the new blacksmith shop and foundry at the Pennsylvania State College, in their new engineering building, where exhaust fan and pressure blower for foundry and blacksmiths, are to be driven by electricity.

Another curious adaptation of the Sturtevant electric fan is that of one which has recently been shipped to one of the largest silver mines in the world—in Bolivia, South America. It has a Sturtevant electric motor directly attached, the motor being covered by a heavy steel plate case to keep out the dirt and prevent injury to the motor from surrounding objects. This fan is provided with an eye bolt at the top of the case, and is to be suspended by a rope or cable in the mine shaft, and the fan and motor will be raised or lowered to suit the circumstances; the blower, being driven by an electric current, is specially adapted for this purpose. Mining companies can readily see that not only this method of installation can be used, but that fans can be supplied with motors for stationary use as well in any part of the mine.

The B F. Sturtevant Co., Boston, Mass., will be pleased to recommend the proper sizes of fans and to furnish them with motors for any voltage, with plans for installation.

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The Akron Heating and Ventilating Co. are building new works at Barbeton, Summit Co., O., a new manufacturing town that is booming. It is about eight miles from Akron. The foundry is about 40 x 80, and is designed for light castings.

Apply for exclusive territory in your locality quick, and send in your application for the agency before someone else gets ahead of you. References required.

All of the Same Mind.

When, a few weeks ago, we decided to publish a periodical devoted entirely to the interests of the whole foundry business, the idea occurred to us that it might be a good idea to invite an expression of opinion from prominent men in the foundry world as to the necessity for such a publication and the probable success likely to attend such an enterprise, thinking at the same time that it would be an acceptable way in which to make the announcement of our intentions. We have been both surprised and delighted at the vigorous nature of the replies received from all quarters. All have appeared enthusiastically of the opinion that such a paper was sorely needed, and certain, if properly conducted, to meet with prosperity. We think we know what is required, and believe we can supply the deficiency. Time and our patrons will decide that. For the present we content ourselves with publishing some extracts from a few of the many letters we have received. They come from all sources and all quarters, and only in a slight degree indicate the universal appreciation of our undertaking that exists in the minds of all:

Every foundryman in this country and many in Europe have heard of "American Foundry Practice" and the "Molder's Text Book," two most interesting volumes published by that pioneer in foundry literature—Thomas D. West. Here is what the author has to say about THE FOUNDRY:

"Glad to learn of your intentions to publish a paper devoted exclusively to the foundry. There is a large field for such a publication, and in good hands it is sure to be a success and accomplish great good in educating and elevating the molder and his trade. Hope all will appreciate your efforts."

—++—

Victor Colliau was the inventor of the cupola which still bears his name, and naturally takes a great interest in anything pertaining to the foundry. Here is what he says:

"I have received your circular saying that you intend to start, very soon, a new paper in favor of the foundry business. I think that such a paper could be made very interesting to everybody, because the iron industry is the most important in the world. I wish you success, and hope that your future publication will have for object the improvement, instruction and future elevation of the social condition of the majority —the workingmen."

—++—

The Hussman Crucible Co. are, as will be seen by their advertisement elsewhere, a Western concern, and ought to know something of the needs of a foundry publication. They say:

"We do not see why such a publication as you describe should not be a success."

We all know of Simpson Bolland, and thousands who do not enjoy his personal acquaintance feel as if their familiarity with his writings entitles them to feel as if Mr. Bolland was their friend. Concise and clear as always, here are his sentiments:

"Your new adventure has my warmest sympathy, and if it is in my power to help you, you may rely on me assuredly."

—++—

L. A. Crandall is well known to the foundry world as the representative of Byram & Co., cupola manufacturers, and has travelled over a large portion of America. He knows the business and its requirements thoroughly, and, though habitually cautious, speaks right out on this subject:

"Will say I am very much pleased to have the opportunity of expressing my views on the advisability of a foundry publication. I think there is a very large field for such a journal, and if managed in a judicious manner and improved upon as I know it will be from time to time, I for one would not fear the results financially of such an enterprise."

—++—

H. J. Graf, superintendent of the Todd Pulley and Shafting Works, East St. Louis, Ill., says:

"Your circular letter of the 8th to hand and carefully perused. In reply to same will say my candid opinion is that a trade paper, as described in your letter, would not only be a well-paying journal, but would be a very serviceable paper to all founders. We feel assured that you would not experience any trouble in securing plenty of advertising matter."

—++—

Mr. C. T. Holbrook has obtained some prominence as an authority on pig iron, and his writings on the subject have always been interesting. He analyses this subject as follows:

"I have long entertained the opinion that the iron founder was neglected. I am sure many of them are desirous of learning new and improved methods, and such a publication as you have in mind would be appreciated. If I can be of any help to you, command me."

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S. F. Hodge & Co. are among Detroit's largest iron founders. Marine engines are their specialty, of which they are among the principal manufacturers on fresh water. Here is what they say:

"We see no reason why such a publication as you outline should not be highly successful. There is a demand for just such a publication, and we sincerely wish you every success."

—++—

B. F. Sturtevant & Co., of Boston, are well known as leading manufacturers of pressure blowers, and who are especially desirous of keeping abreast of the times:

"In regard to the circular and proposed issue

of the foundry journal, we would say that we are glad you have taken up this subject. We believe it will be interesting to more people—manufacturers and mechanics generally—than almost any other subject which could be taken up at the present time, and we most heartily favor any information that can be spread generally on the subject which this intends to cover. We know we could get a good deal of information from such a magazine, and shall watch its columns closely. We hope you will be successful in obtaining information from practical foundrymen, covering their experience with all foundry work. We, of course, shall be particularly interested in work around the cupola, the capacity of certain cupolas, the cost of melting iron. The experience with different makes of blowers will be particularly interesting to us, and it has been a long time since anything fresh was really obtainable."

—++—

J. S. Clark is proprietor of Clark's foundry, in Denver, Col. He promises practical support, as follows:

"In regard to your publication I will say anything that is in reason I will come to your aid as subscriber, I think it would be very beneficial to me. I have made a hard study of foundry business for eight years, and had to rely on myself for any knowledge that I have gained, therefore I would be very much pleased to have the opinions of practical men on the foundry business through your publication."

—++—

John Walker, of the Walker Mfg. Co., Cleveland, O., who have the finest equipped foundry for machinery work in the United States, and who is himself a deep student of matters pertaining to the foundry, and the possessor of several patents on foundry appliances, says:

"We think a venture in a publication devoted to foundry work and its kindred interests ought to be a good one, and ought to command a wide circulation, especially as there is nothing published, that I am aware of, at present that covers this field of work as it ought to be. You have our best wishes in the new enterprise."

—++—

Robert E. Masters at one time kept his name pretty prominently before the public through his voluminous writings on foundry matters. Of late years, however, he has been in a position—as manager of the Marshall Car Wheel and Foundry Co., Marshall, Texas—where minutes had a commercial value, and consequently has not been heard from. He has found time, however, to voice his convictions as follows:

"A paper such as you speak of, that will devote itself to the interest of all branches of the foundry trade, and that covers core making and cupola practice—which have been overlooked to a great extent—as two of the most important factors in foundry practice: a paper that will be free from entangling alliances and that will devote itself to the education and the elevation of the foundrymen, is something that is badly needed, and I think will be highly appreciated. Every other branch of trade has a journal devoted especially to its interest, and why not the foundrymen? If the foundrymen are disposed—as I think they are—I feel assured that your venture will be a successful one, and one that will result in a great deal of good. There is no branch of trade that requires more skill and good, solid, earnest thought than is exercised every day in the foundries throughout the land, yet we have kept, or allowed ourselves to be kept, in the background, and it is about time we came to the surface with a journal of our own. I am away from here a good portion of the time, traveling at nights and working days, and when I come home I have a lot of back work to catch up, but I will do my best to have something reach you in time for your first issue, and wish you the utmost success."

—++—

The Cleveland Facing Mills, Cleveland, Ohio, come to the front as follows:

"We wish you every success, and really believe you can make THE FOUNDRY one of the most valuable journals printed in the iron interests."

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W. J. Breed, president of the Crane & Breed Mfg. Co,, Cincinnati, and one of America's most prosperous foundrymen, says:

"Any move which will increase knowledge in the foundry business will benefit all the interests dependent upon it. Such a publication, if representing the most advanced thought, not only in mechanics but also in chemistry, and in methods of conduct of business, would help greatly towards demonstrating the mutual dependence and the possibilities of mutual helpfulness which its various interests possess. The possibilities in this line seem to me to be great."

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The Huyett & Smith Mfg. Co., Detroit, Mich., make a patent pressure blower which seems to be popular and brings them into close communication with the foundry trade. Here are their ideas:

"We have received your prospectus of THE FOUNDRY, and think you have made a start in a new field in which you will find ample opportunity for the use of the peculiar abilities which you have for making such a publication a success. We think that there is abundance of room for such a journal, and hope that you may meet with the success you deserve."

—++—

J. P. Cullen, superintendent of the Griffin Car Wheel Co., Detroit, hits the nail squarely on the head in good shape:

"I heartily approve of the scheme; please put me down as a subscriber."

Thomas Duggan is one of the best known molders and foundry foremen in the Eastern States, and is located at Warren, Mass. He writes:

"I believe such a publication, if properly handled and well conducted, with competent parties to edit it, would be a good thing, and I would cheerfully subscribe for it."

—++—

John Pettigrew has charge of the foundry of the Joliet Steel Co., of Joliet, Ill. He is a past master of the art of steel molding, and in another column contributes something on that subject. Concerning THE FOUNDRY he has this to say:

"Your circular to hand. In reply would say I think your enterprise would fill a vacancy long felt, and I will do all in my power to help you succeed in filling it if you conclude to go on. . . When you start, let me have some of your first issue, and I will drum up all the subscribers possible."

—++—

The Detroit Foundry Equipment Co. make a very large line of foundry equipments, and have a rapidly increasing trade. They are sufficiently interested to write:

"It would seem to us that there is an immense field for a journal of this kind, and we sincerely trust and believe that you will find it a success from the start."

—++—

H. S. Frohman is a young man—very young to fill as successfully as he does the position of secretary and treasurer of such a vast establishment as that of the S. Obermayer Co., Cincinnati—but he has been at it for many years, and we believe his opinion is a valuable one, because he is a nineteenth-century hustler in all that the name implies. He relieves himself thusly:

"I think the enterprise you are about to undertake is a very good one. While there are many papers that pertain to a certain extent to foundry work, there are none that I know of that devote their entire attention to the foundries of all kinds. One paper is devoted to stove work, another to machinery molding, and still another one to machine shops, but as your idea is to get up a paper devoted entirely to foundry work of all kinds and classes, it is an excellent idea. I have found in my travels and experience that foundrymen are as anxious to learn as any other industry where there is anything new adopted in the saving of time and labor. We suppose you will devote this paper considerably to pig iron, its mixtures and uses, and, I suppose, occasionally ring in facings and supplies. All these interest the foundrymen, and if such a paper is gotten up and placed in the different shops it would aid greatly to advance the foundrymen of the present age. A suggestion I would like to offer is to have the paper so published that the articles therein should be intelligible to the shopmen as well as to the officers. We are always anxious to learn anything new pertaining to the foundries, and if we hear of such we generally impart our information where it will do the most good. We will promise you our hearty support in this, and have no doubt it will be a great success. If there is anything we can do for you in any manner to obtain the result that you seek, kindly let us know and we will most gladly do all we can."

—++—

The Garden City Sand Co., of Chicago, are in the foundry supply business, being especially heavy dealers in molding sand. They ought to know what is needed, and write their convictions herewith:

"Replying to your enquiry as to what success a publication would meet with published entirely in the interest of the foundry business, the same to be ably edited, and a paper which will result in the general enlightenment of the foundry trade, would say that there is a splendid opening at the present time. Foundrymen as a class of business men perhaps make greater efforts to obtain knowledge and information in their line than any other men we know of, competition being the incentive which pushes them forward to a great degree. We certainly think that with the practical knowledge you already have you should be fully equipped to carry forward such a publication to success, and make it an interesting and profitable paper, not only to yourself but to the subscribers as well."

—++—

Is there a molder in America—in iron or brass—who has not heard of the Joseph Dixon Crucible Company, who claim to be the oldest concern of their kind in the world:

"We have your circular bearing on a publication pertaining to the welfare of the foundry interests. We should think that a properly conducted paper of this kind would be of the greatest value to foundrymen as well as to advertisers, and if your rates are right and the paper all you promise you can certainly count on an "ad" from this company."

—++—

Mr. Wm. Ferguson is well known as the foreman of Frazer & Chalmers' foundry, Chicago, one of the largest in America. His opinion is quoted herewith:

"Your circular letter contemplating the publishing of a strictly foundry paper, received, and my opinion is that the country is ripe for such a publication. There is no question in my mind but that you will do good to others and crown yourself with honor and financial success."

—++—

This is from the J. D. Smith Foundry Supply Company, of Cincinnati, an aggressive concern,

who are making a specialty of complete foundry outfits:

"We are in receipt of your prospectus of THE FOUNDRY, and note the encouraging sentence you have written on same—'It is a go.' This sentence means business, and now that it has started we trust *it will keep agoing*. There is no doubt in our minds that a journal devoted exclusively to the foundry and all interests connected with the same will pay. The publications which foundrymen and all interested in the industry now support are not what is desired; they cover too many branches, and it generally wears a reader out, who is interested exclusively in foundry work, looking for an interesting item concerning this particular business. THE FOUNDRY will have our hearty support, and we shall be very much pleased to hear of its established success."

—++—

Every foundryman, especially in the West, has heard of the large establishment of A. P. Allis, Milwaukee, Wis., which probably employs more machinery molders steadily than any other west of Pittsburg. Joseph Harrison is at the head of this vast establishment, and says:

"After reading your circular I was convinced that you had struck the right course, and I hope if the enterprise is undertaken it will be a success for you financially, and a great benefit to your subscribers. A monthly publication like the one you refer to in your circular would be a benefit to the trade in general, and if devoted to the interests of the foundry business would be welcomed and honored by any sober and thoughtful man who has any respect at all for himself or his trade. I wish you all the success possible."

—++—

John Hill, with the S. Obermayer Co., writes:

"Was pleased to learn that you are going to publish a journal that will be devoted entirely to the foundry business. In this you should have the support of all interested. I can see no reason why THE FOUNDRY will not be popular. Up to this time there has never been anything devoted exclusively to this branch of the iron business. Your past is a sufficient guarantee that THE FOUNDRY will be sought after by the manufacturer and the molder alike. In your new undertaking I wish you all the success a generous public can bestow. Will use my influence with my friends and acquaintances to contribute to your columns from time to time. Any valuable information that would be of interest that I can gather I will gladly send to you. Again I wish you much success."

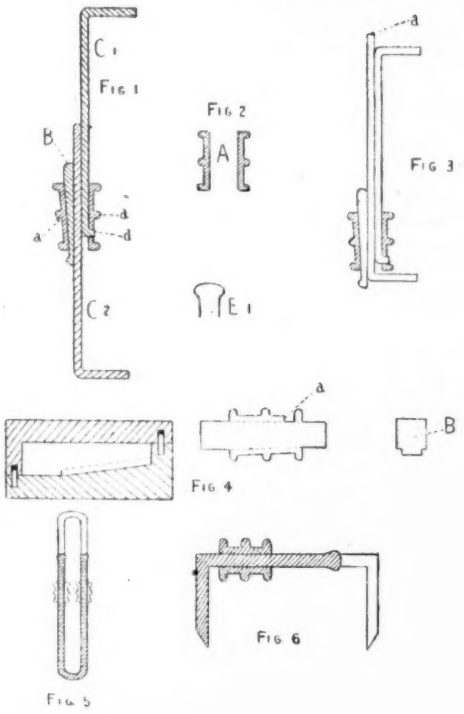
—++—

William A. Harris, formerly manager of the Springfield Foundry Co., Springfield, Mass., writes as follows:

"I have often looked for a clean, first-class publication, devoted exclusively to foundry practice, management, equipments and improvements. Have as yet seen nothing of such a journal. I venture to say such a monthly would receive a hearty welcome at the hands of managers, etc."

ADJUSTABLE FOUNDRY CLAMP.

In view of the fact that in the average and larger sized jobbing foundries considerable time is lost in hunting clamps of the required length, which is no less annoying to the journeyman molder than to the employer himself, the writer had occasion recently, while in the employ of the Fraser and Chalmers Machinery Co., of Chicago, to devise a substitute for the cast iron clamp, which has given such satisfaction that a description of it may be of interest to those needing something similar.



The general plan of the clamp is shown in Fig. 1, which, to meet the requirements of most any foundry, should be made in three sizes—those that will adjust from 8 to 16 inches, from 16 to 32 inches, and from 32 to 64 inches.

A A, Fig. 1, shows the cast iron box, which is made of 3-16, ¼ and ⅜ metal for the sizes mentioned above, the strengthening strips as shown being additional. B is a cast or wrought iron or brass wedge, made with a taper of 1 in 8, or ½ inch in 1 inch.

C 1 and C 2 are the wrought iron halves of clamp, which should be made of ⅝ x-1½ inch,

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PRICES QUOTED ON APPLICATION.

for the 8 to 16, of ⅝ x 2 inch for the 16 to 32 and 2¼ x 1 inch for the 32 to 64 inch.

The upper half of clamp denoted as C 1, it will be noticed, has a toe forged on the lower end, which fits into an opening in the box at d 1, which secures it permanently in that position as regards the box, the other half being plain until it is put together, when the upper end, shown at a, Fig. 3, is in blacksmith's language stoved up, as shown at E, Fig. 1, which prevents it being taken apart. Fig. 2 shows the other sectional view of the clamp box, which should be 2½, 3½ and 6½ inches long for the respective sizes given above.

At Fig. 4 is shown the plan of pattern and core box, the slot opening for toe of clamp being cut out in the pattern the width of the toe entering it.

A sectional view of the core is shown at B, Fig. 4, the top and bottom strings in the core box being stationary, which is shown by the dotted lines in box.

In putting the clamp together, the part C 1, with the toe on, is first placed in the box; the wedge is next put in place, and the part C 2 slipped in between and placed in the position shown in Fig. 3, when the part a, Fig. 3, is placed in the fire and stoved up as has been stated.

It will be noticed that the greater the strain the tighter the wedge becomes, and as the adaptability of a wedge with such a slight degree of taper cannot be questioned in such cases, notwithstanding the opinions of cautious molders to the contrary, the writer has in mind several conveniences in the way of foundry tools constructed on this principle, which would—as the clamps have done—pay for themselves in a short time; among which might be mentioned a binder for loam molds, and a binding clamp for wood and iron flasks, shown in Figs. 5 and 6.

The latter could be made of cast-iron, and three sizes of binders would cover most any requirement; the former could be made of ⅜ x 2 inch iron, bent edgeways, instead of 1 inch or 1¼ inch square, as is now the case.

Should any further particulars be necessary, they will be cheerfully furnished through the columns of THE FOUNDRY, or otherwise if desired.

NANCY HANKS NOT IN IT.

Good Sand if you want it try "Wanatah,"
All medium castings can be made without flaw.
Respecting the "Joliet" for all heavy work;
Don't think you can dig its equal on earth.
Each grade of the "Woodstock" one, two and three,
No foundry without it for a moment should be.

Certainly, there is the "Cary," to give strength to old sand
It can never be beat, in this broad land,
To speak of "McHenry," we surely must try,
You can make any sized casting, you don't need to dry.

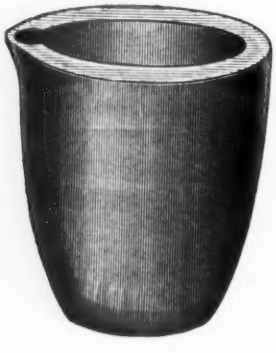
Sand for light work the "Albany" is best
And the laurels from all others, with ease it has wrest.
Now the "Newport" comes next for light castings and brass,
Don't think it has an equal for work of this class.

Coming now is the "Centerton" coarse and fine,
On malleable and brass castings, all others cut shine.
Minerals, plumbago and silver lead,
Perfect wash and coke blcking, stand at the head,
And on our riddles and shovels we possess a great name,
Now we ask you to try us and you will sustain,
Yours truly in all that they claim.

GARDEN CITY SAND CO.,

159 LASALLE STREET, CHICAGO, ILL.

CRUCIBLES, PLUMBAGO,



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HUSSMAN CRUCIBLE CO.,

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YOU are hereby respectfully notified that the great desideratum in the Foundry business, viz: The need of a first-class foundry paper, is about to be filled by the publication of "THE FOUNDRY." The importance of the industry and everything connected therewith is such that it

CANNOT profitably keep pace with the times or other industries without the assistance of a high-grade paper, devoted exclusively to its own interests, and which would, in a live nineteenth-century manner, keep its readers posted on all matters concerning it. It will

AFFORD every foundryman in the country, whether a worker in iron, steel or brass, and whether engaged in machinery, stove, bench, architectural, malleable or car-work branches of the business, an opportunity to keep informed on all subjects pertaining

TO his business, and he cannot afford to do without it if he expects to prosper. New methods of doing any kind of foundry work, new appliances, mechanical articles by all the best writers, foundry news items fresh from all parts of the continent from an army of reliable correspondents, trustworthy market reports, and a well-conducted editorial department, will enable us to successfully

DO what we have undertaken, and publish one of the very best trade papers in the world. We believe in the future of this great and growing branch of our American industries. It is second to none in importance, and every one engaged in any of its departments should feel a personal pride in its progress.

WITHOUT a trade paper of its own, while all others have one or more, its interests have suffered, and it has been prevented from taking the rank its merits have entitled it to, but a change is about to occur, and

IT is a matter of grave importance to you personally that YOU should keep posted and know what is going on. Send in your subscription immediately on the enclosed blank. Do not put it off until next week, or even to-morrow. Attend to it now, and by that means secure a complete file commencing with the first copy.

The Foundry Publishing Co.,

172 GRISWOLD ST.,

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AGENTS WANTED. ADDRESS,

THE FOUNDRY PUBLISHING CO.,

172 Griswold Street, DETROIT, MICH.

Among the Foundries.

The Grant Locomotive Works, Chicago, are in full blast.

Akron, Ohio, foundries are all busy, with plenty of orders on hand.

The Western Foundry Company, Chicago, have commenced work on their mammoth plant.

The Phœnix Foundry, St. Louis, Mo., is very busy on general jobbing, railroad and agricultural castings.

It is rumoured that the Pope Mfg. Co., Hartford, Conn., contemplate the erection of a foundry shortly.

J. M. Dodge, formerly with Lincoln & Dodge, is now turning out castings in his new shop at South Boston, Mass.

The Falls Rivet Works, Cuyahoga Falls, O., are placing in their foundry a 20-ton crane, to be run by compressed air.

Holton & Weatherwax, of Jackson, Mich., are building a new foundry and machine shop. The foundry will be 40 x 80 feet.

The Vulcan Foundry Co., of New Castle, Pa., whose plant was burned some time since, has rebuilt and are filling all orders.

Pratt & Cady's foundry, Hartford, is very busy; they have recently taken contracts for a large quantity of architectural work.

The St. Louis Iron and Machine Company, St. Louis, Mo., are running full-handed, principally on pressed brick machines.

The Rankin & Fitch Foundry Co., St. Louis, Mo., are making active preparations for a large contract which is reported to be in sight.

The Winship Machine Co., builders of cotton gins, presses, saw mills, etc., suspended about half their force on Aug. 1. Over stock is the cause.

James Gebler, with P. E. Roberts, Chicago, is making a grand success of his crucible steel, and has orders on hand many months in advance.

The Western Electric Foundry Company's new works at Chicago, Ill., will be completed by the end of next month with bright prospects ahead.

The foundries of Canton, Ohio, are very active at present, the J. H. McLain Machine Co., Sherlock, Elmer & Sherlock and Canton Iron Foundry Co., general jobbing foundries, being particularly busy.

The iron-working machine busines at Cincinnati is dull, a vast contrast with business in this branch of industry compared with the same time last year.

Black & German, stove manufacturers, Erie, Pa., have recently erected a 60x100 addition to their extensive foundry and have every floor filled at present.

William Deering & Co., Chicago, are building a large addition to their foundry and increasing their melting capacity by adding a new 76-inch Colliau cupola.

Henry Roos will open a foundry at 935-937 Kimbal-avenue. He will have floor room for twenty-six molders, and will be ready for business by October 1.

Webster, Camp & Lane, Akron, O., who it was reported some time ago were about to remove to Kent, Ohio, have decided to remain where they are at present.

August 1 Colt's foundry, Hartford, Conn., closed down indefinitely and the work transferred to Lincoln's foundry, same city; economy is assigned as the cause.

The Missouri Malleable Iron Works, St. Louis, Mo., have started up with a large complement of hands. The works were moved recently from St. Louis to East St. Louis.

Steel casting foundries are becoming plentiful, and all seem to be doing well. The new foundry at Lima is an open hearth plant and have a splendid outfit. They will fire up shortly.

The Wells & French Co., Chicago, have just completed the extensive addition to their already large foundry, and are going into the manufacturing of electric motors for different purposes.

The Georgia Stove and Range Co., with capacity for thirty-five molders, are running ten. The business of the company has been placed in the hands of a receiver. Preferred stock is the cause.

The Medharat Patent Pulley Works are about to remove their foundry and machine shops from their present cramped quarters at Second and Biddle streets, St. Louis, to the southern part of the city.

Canton, Ohio, foundries are doing considerable work for the Morgan Engineering Co., of Alliance, Ohio, this firm having much more work than they can possibly turn out in their own very large foundry.

The Congdon Brake Shoe Company, Chicago, Ill., have just completed several large open-hearth furnaces for the manufacture of steel castings. They have several large contracts on hand already.

The Vanwinkle Gin and Machine Company, Atlanta, Ga., are working 15 hours a day with a full force. They manufacture ice machines, oil mills, and cotton gins and presses, and are badly behind with orders.

The George Gray Machine Company are erecting a foundry of very large dimensions on the corner of Gest-street and C. H. & D. R. R., Cincinnati. They will probably be ready to start the first of December.

The stove foundries are as a whole doing very well. There have been quite a number of them enjoying a long summer shut-down, but the majority started up promptly and are making very few complaints.

Frazer & Chalmers have moved into their new shops, Twelfth and Rockwell Streets, Chicago, and will employ about 140 molders; they probably turn out more mining machinery than any other firm in this country.

The Chicago Foundry Supply Company, under the able management of Mr. S. Obermeyer, reports business very good in Chicago. They keep all kinds of foundry supplies constantly on hand. Write for a catalogue.

The Southern Agricultural Works, Atlanta, Ga., have started up again after being shut down for four months. They manufacture plows in many styles, cotton gins and cotton planters. Mr. Walter Deen is foreman of the foundry.

The agricultural foundries have been particularly busy this year. It has been the very best year the agricultural manufacturers have had since 1882. The manufacturers of traction engines and threshing machines are all behind in orders, and most of them will try to make the "closing-down and taking stock" season very short.

The Consolidated Street R. R. Co., Atlanta, Ga., are adding an iron foundry to their already large plant, and will soon be doing their own work in both iron and brass. Mr. Henry Gullatt will have charge of the foundry; he is a molder of mature years and has had considerable experience in both iron and brass. The company are fortunate in securing the services of so good a man.

The shops of the Georgia Technological School, which were burned some time ago, are being rebuilt. The commissioners say that they will be ready to commence work in September. Mr. Albert Buzzell is the foreman of the foundry.

Tarrant & Ramsey, Chicago, Ill., are very busy on marine work and general machine castings. They make a specialty of marine work, large or small, and devote more than a usual amount of attention to the mixture of high grade iron.

As it has been for the past few years, the car foundries have been almost continuously busy, and just at present, with very few exceptions, all are running full. The large crops of this year will not hurt this branch of business in 1893.

H. F. Graf, superintendent of the Todd Pulley and Shafting Works, East St. Louis, Ill., has built and in operation a new pulley machine, which makes in sizes from 50 to 60 inches, any size face, split if necessary, double-belt or web centre.

Mr. W. J. Eator has leased the Bridge Works foundry, Atlanta, Ga., and is preparing to do foundry business in a large style. Mr. Eator has a host of friends, and, being a molder of considerable reputation, will no doubt receive a large share of business.

The Fulton Iron Works, of St. Louis, Mo., have resumed operations after having been shut down for repairs. A new steel crane of huge dimensions has been placed in position, adding greatly to their facilities for handling heavy work. Mr. Julius Smith superintended the erection.

The New York City foundries are making a very serious complaint, as far as New York City is concerned, that the late strike in the building trade has driven a large proportion of work to the small places adjoining, and they are afraid it will be some time before they get it back—if they ever do.

The people in Bucyrus, Ohio, could not believe that one of their principal manufacturing concerns meant to leave them when they said so; but the enterprising proprietors of the Bucyrus Steam Shovel Co. meant business, and are putting up mammoth works in Milwaukee. Their foundry will be a model one; it is very large, and will be fully equipped with the latest devices of modern machinery.

Some Leading Industries.

The S. Obermayer Co., Cincinnati.

We take great pleasure in showing our readers the plant of the S. Obermayer Co., Cincinnati, O. It is located on the outskirts of that city, on the main line of the C. H. & D. R. R., consisting of six large buildings, (warehouse having the capacity of twenty thousand barrels of facing), another warehouse containing thousands and thousands of shovels, riddles, brushes, bellows, etc., two mill buildings,

wherein there are forty mills, with an unlimited capacity, boiler room and engine house. Their location and their ability to manufacture are such that there is no cause for delay in filling all orders promptly.

This company has been in existence since 1875, first starting with a one story plain building, and by energetic work have increased to what is shown above.

Their books show that they have about three thousand customers and their manufactures are used in almost every civilized part of the globe. Their business has also of necessity become so diversified that they are now in a position to equip an entire new foundry plant, not only with facings, blacking, plumbago, silver lead, etc., but with cupolas, cranes, ladles and all kinds of foundry supplies and equipments. They issue a yearly catalogue illustrating all goods they manufacture; their catalogue not only advertises their goods, but also gives many valuable points of interest to the foundrymen. Their catalogues are distributed gratis over all the world.

The S. Obermayer Co. also built, last spring, and put in operation shortly afterwards, the Chicago Foundry Supply Co., which is undoubtedly the most modern and best equipped facing mill in the country; no expense being spared to make it in every way convenient and to manufacture the highest grade of goods.

The officers of the S. Obermayer Co. are Messrs. T. L. Griffith, president; Jno. Hill, vice-president; H. F. Frohman, secretary-treasurer, and last, but not least, Mr. S. Obermayer, general manager.

—o—

AN IMPORTANT CHANGE.

Two Leading Foundry Supply Houses Consolidate.

PHILADELPHIA, PA., *August 16, 1892.*

"Having disposed of my interest in the firm of J. A. Emerick & Co., and retired from the business heretofore carried on by myself and Mr. Howard Evans, the same will be continued by my successors, J. W. Paxson & Co. and Mr. Howard Evans, whom I hereby empower to collect and pay all unsettled accounts belonging to the retired firm of J. A. Emerick & Co. With many thanks for past favors, I remain,

"Yours truly,

"JNO. A. EMERICK."

"Friends and patrons, we propose by the consolidation of the two houses of J. A. Emerick & Co. and J. W. Paxson & Co. to give you better service in the delivery of molding sand and foundry supplies, and as soon as we can systematize the business under one set of hands we hope to make it mutually advantageous. Thanking you for past favors, and soliciting a continuance of your patronage, we remain,

"Yours truly,

"J. W. PAXSON & CO.,

"HOWARD EVANS."

The above notice is of very great importance to foundrymen in general, and more particularly to those of the middle states. While the movement may appear upon first thought as though the very enterprising firm of J. W. Paxson & Co. are looking forth to a monopoly of their local business, we are assured from them that they intend to make the consolidation of the two houses as much to the benefit of their many customers as to themselves by congregating the business all under one management; by thus cutting off a very great expense they expect to be able to sell at lower rather than at higher prices.

About 35 years ago Mr. Jno. A. Emerick, a bright young man, then an employe at I. P.

Morris Co.'s, one of the largest foundries in this city, left that business for the purpose of making foundry facings. He started in the basement of an old mill close by, and soon became very successful in making the best heavy facing then known in this country. He did not solicit an extensive business on account of his disposition to serve his immediate friends in Philadelphia. Country foundries, however, soon found who made good facings. He was compelled several times to move into larger quarters to furnish the increasing trade, until he finally purchased the extensive factory, 1056 to 1076 Beach-street, where his growing popularity in the business compelled him to fit up a very large facing mill.

About 18 years ago he associated with him Mr. Howard Evans, a young man of fine education and rare ability, who took up the foundry supply and equipment business in detail, and through his unceasing energy in catering to the wants of foundrymen in general succeeded in adding to Mr. Emerick's facing business a very complete line of foundry wants. Mr. Evans also assisted very materially in organizing the Foundrymen's Association, of which he is the secretary. He has now become a member of the firm of J. W. Paxson & Co., where he anticipates a still greater popularity with the foundrymen, owing to the more perfect facilities placed at his command.

The firm of J. W. Paxson & Co. will now be composed of Jno. W. Paxson, J. K. Bougher, A. Burton Paxson, Howard Evans, Howard M. Bougher.

Mr. Jno. W. Paxson commenced the molding sand business in the City of Philadelphia in 1862, and two years later associated with him Mr. J. K. Bougher. In 1871 they purchased the factories 514-16-18 Beach-street, where they commenced the manufacture of foundry supplies in detail. Ten years demonstrated the fact that larger quarters were necessary, and they purchased their present site, Pier 45, or 1015 to 1031 North Delaware-avenue. This property fronts on Delaware-avenue and extends 600 feet to the Port Warden's line in the Delaware river. They have large facing and other factories erected on this property, driven by a 250 horse power Corliss engine, steam derricks on the pier, where they handle their own sand and other material, thus congregating all the different branches of a foundry supply business. This firm owns banks and farms of all the various kinds of molding material, with steam barges, steam tugs and lighters for its transportation, and they say they have invested nearly every dollar they have made to perfect the business and produce at first cost, and should be in position to almost defy competition.

While there are many foundry supply dealers, J. W. Paxson & Co. are one of the very few houses in this country, to our knowledge, who manufacture their own goods; their foresight many years ago in adopting this measure has brought them an extensive trade, and enables them to supply substantial articles specially adapted to foundries and not obtainable elsewhere.

The new firm will be pleased to wait upon the customers of the old house of J. A. Emerick & Co., and can fill orders of the same quality of material as heretofore.

——o——

A Pleasure to Deal With Them.

The Garden City Sand Co., room 53, 159 La Salle-street, Chicago, advise that this has been the heaviest year in the volume of business in the way of molding sand and foundry supplies that they have ever experienced. They have just completed an order for Fraser & Chalmers' new works of something over 4,000 tons of molding sand, which is probably the largest single order for molding sand ever placed in this country for immediate delivery. They undoubtedly do the heaviest general molding sand business of any one in their line, as they handle every grade of molding sand, from the finest Albany to the heaviest machinery. They not only furnish molding sand, but all kinds of core sand. They also deal in all kinds of foundry supplies, including riddles, shovels, brushes, bellows, bench rammers, etc. Foundry men and all others who manufacture castings, either large or small, and who desire to place their orders where they can get them filled without delay, will find it a pleasure to deal with parties in this line who can always attend to their wants promptly.

——o——

Agents are wanted immediately, in every town and city of America, to secure subscribers for "The Foundry."

C. A. MATTS. **LET US MAKE YOUR BRASS CASTINGS** ALEX CAIRNS.

We Make a Specialty of Supplying Iron Foundries with what they Require in this Line.

COLUMBIA
BRASS FOUNDRY

Brown Bros. Building, cor. Quincy and Clinton Sts.

CHICAGO, - - - - ILL.

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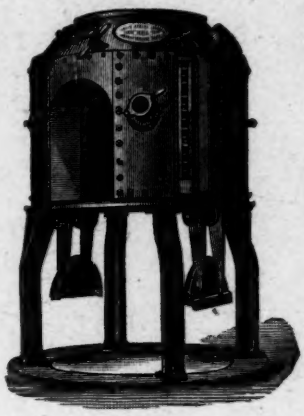

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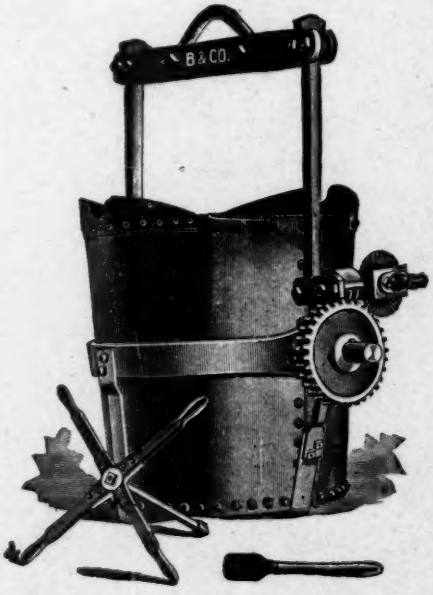

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